

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Currently Amended) A method of controlling a queue buffer arranged to queue data units received over a communication network, comprising:
invoking a congestion notification procedure ~~(S3)~~ under a predetermined condition ~~(S1, S2)~~, wherein characterized in that said congestion notification procedure ~~(S3)~~ comprises
determining ~~(S31)~~ whether one or more of said queued data units contains a predetermined information, and
~~if no queued data units contain said predetermined information,~~
performing ~~(S32)~~ a congestion notification with respect to one or more queued data units if no queued data units contain said predetermined information, and if ~~one or more queued data units contain said predetermined information~~, preventing a performance of a congestion notification at least with respect to said data units containing said predetermined information, if one or more queued data units contain said predetermined information.

2. (Original) The method of claim 1, wherein said performing of said congestion notification with respect to a given data unit comprises one of dropping said given data unit and marking said given data unit with a congestion notifier.

3. (Currently Amended) The method of claim 1 ~~or claim 2~~, wherein if one or more queued data units contain said predetermined information, performance of congestion notification with respect to any queued data units is prevented.

4. (Currently Amended) The method of claim 1 ~~or claim 2~~, wherein if one or more queued data units contain said predetermined information, performance of congestion notification with respect to all data units belonging to a same flow as said data units containing said predetermined information is prevented.

5. (Currently Amended) A method of controlling a data unit sender ~~(52)~~ for sending data units ~~(54)~~ over a communication network ~~(3)~~, comprising:

determining ~~(S21)~~ whether one or more data units of a flow of data units fulfills ~~fulfills~~ a congestion notification prevention condition, and

if said one or more data units of said flow fulfills ~~fulfills~~ said congestion notification prevention condition, setting ~~(S22)~~ predetermined congestion notification prevention information in at least said one or more data units of said flow.

6. (Currently Amended) The ~~[[A]]~~ method according to claim 5, wherein said step ~~(S21)~~ of determining whether a congestion notification prevention condition is fulfilled comprises the analysing of higher layer information.

7. (Currently Amended) The method of claim 5 ~~or 6~~, wherein said congestion notification prevention condition comprises an indication that the flow of data units is coming to an end.

8. (Currently Amended) The method of claim 5 ~~one of claims 5 to 7~~, wherein said congestion notification prevention condition comprises an indication that the flow of data units ~~that said flow~~ is application limited.

9. (Currently Amended) The method of claim 5 ~~one of claims 5 to 8~~, wherein said congestion notification prevention condition comprises an indication that said one or more data units of said flow carry predetermined signaling ~~signalling~~ identifiers.

10. (Currently Amended) The method of claim 5 ~~one of claims 5 to 9~~, wherein said data unit sender ~~(52)~~ is part of a proxy server ~~(46)~~.

11. (Currently Amended) The method of claim 10, wherein said proxy server ~~(46)~~ is connected to a mobile communication network ~~(41)~~ and arranged for receiving data units from a sending end point ~~(47)~~ outside of said mobile communication network ~~(41)~~ and relaying said data units to a receiving end point ~~(43)~~ connected to said mobile communication network ~~(41)~~.

12. (Currently Amended) The method of claim 5 ~~one of claims 5 to 11~~, wherein said predetermined congestion notification prevention information is a single bit.

13. (Currently Amended) The method of claim 5 ~~one of claims 5 to 11~~, wherein said predetermined congestion notification prevention information is a data unit count-down value that counts down the number of data units remaining in the flow.

14. (Currently Amended) A queue buffer controller ~~(10)~~ for controlling a queue buffer ~~(20)~~ arranged to queue data units ~~(30)~~ received over a communication network ~~(3)~~, comprising:

a congestion notifier ~~(103)~~ for invoking a congestion notification procedure under a predetermined condition, wherein ~~characterized in that~~ said congestion notifier ~~(103)~~ comprises

~~a part (1031) means~~ means for determining whether one or more of said queued data units contains a predetermined information, ~~and if no queued data units contain said predetermined information,~~

means for performing a congestion notification with respect to one or more queued data units if no queued data units contain said predetermined information, and ~~if one or more queued data units contain said predetermined information, and~~

means for preventing a performance of a congestion notification at least with respect to said data units containing said predetermined information if one or more queued data units contain said predetermined information.

15. (Currently Amended) The queue buffer controller of claim 14, wherein said means for determining whether one or more of said queued data units contains a predetermined information ~~part (1031) of said congestion notifier (103)~~ is arranged to prevent performance of congestion notification with respect to any queued data units if one or more queued data units contain said predetermined information.

16. (Currently Amended) The queue buffer controller of claim 14, wherein said means for determining whether one or more of said queued data units contains a predetermined information ~~part (1031) of said congestion notifier (103)~~ is arranged to prevent performance of congestion notification with respect to all data units belonging to a same flow as said data units containing said predetermined information if one or more queued data units contain said predetermined information.

17. (Currently Amended) A controller ~~(54)~~ for controlling a data unit sender ~~(52)~~ for sending data units ~~(54)~~ over a communication network ~~(3)~~, comprising:
an element ~~(510)~~ for determining whether one or more data units of a flow of data units fulfills ~~fulfills~~ a congestion notification prevention condition, and if so, ~~said one or more data units of said flow fulfills fulfills said congestion notification prevention condition, for the element~~ setting predetermined congestion notification prevention information at least in said one or more data units of said flow.

18. (Currently Amended) The controller ~~(54)~~ according to claim 17, wherein said element ~~(510)~~ for determining whether a congestion notification prevention condition is fulfilled, further comprises an element for analyzing ~~analysing~~ of higher layer information.

19. (Currently Amended) The controller of claim 17 ~~or 18~~, wherein said congestion notification prevention condition comprises an indication that the flow is coming to an end.

20. (Currently Amended) The controller of claim 17 ~~one of claims 17 to 49~~, wherein said congestion notification prevention condition comprises an indication that said flow is application limited.

21. (Currently Amended) The controller of claim 17 ~~one of claims 17 to 20~~, wherein said congestion notification prevention condition comprises an indication that said one or more data units of said flow carry predetermined signalling identifiers.

22. (Currently Amended) The controller of claim 17 ~~one of claims 17 to 24~~, wherein said data unit sender ~~(52)~~ is part of a proxy server ~~(46)~~.

23. (Currently Amended) The controller of claim 22, wherein said proxy server ~~(46)~~ is connected to a mobile communication network ~~(41)~~ and arranged for receiving data units from a sending end point ~~(47)~~ outside of said mobile communication network ~~(41)~~ and relaying said data units to a receiving end point ~~(43)~~ connected to said mobile communication network ~~(41)~~.

24. (Currently Amended) The controller of claim 17 ~~one of claims 17 to 23~~, wherein said predetermined congestion notification prevention information is a single bit.

25. (Currently Amended) The controller of claim 17 ~~one of claims 17 to 23~~, wherein said predetermined congestion notification prevention information is a data unit count-down value that counts down the number of data units remaining in the flow.